

Executive Order VR-203-G
VST Phase II EVR System

Exhibit 3
Performance Standards and Specifications

Part I - VST Manufacturing Performance Standards and Specifications

The VST Phase II EVR System and all components shall be manufactured in compliance with the performance standards and specifications in CP-201 (amended May 25, 2006), as well as the requirements specified in this Executive Order. All components (Exhibit 1) shall be manufactured as certified; no change to the equipment, parts, design, materials or manufacturing process shall be made unless approved in writing by the Executive Officer or Executive Officer delegate. Unless specified in Exhibit 2 or in the ***ARB Approved Installation, Operation and Maintenance Manual***, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a gasoline dispensing facility.

1. NOZZLES

Every nozzle shall be tested at the factory. Every nozzle shall have affixed to it a card or label stating the performance specifications listed below, and a statement that the nozzle was tested to, and met, the following specifications.

- a. The nozzle vapor valve leak rate shall not exceed 0.07 cubic feet per hour (CFH) at a pressure of +2 inches water column (WC) when tested in accordance with the latest version of TP-201.2B.
- b. The nozzle automatic shut off feature is tested at all service clip settings as well as handheld in accordance with Underwriters Laboratories (UL) Standard 842.
- c. The nozzle's primary and secondary shut-off mechanism shall be identical to the design that passed the California Department of Food and Agriculture Division of Measurement Standards Article 2 (DMS 6-6-97).
- d. The nozzle is manufactured to the specifications that passed all tests conducted during the ARB certification for the following:

TP-201.2C	- Spillage from Phase II Systems
TP-201.2D	- Post Fueling Drips from Nozzles
TP-201.2E	- Gasoline Liquid Retention and Spitting in Nozzles and Hoses
TP-201.2J	- Nozzle Pressure Drop
- e. The nozzle vapor collection boot is manufactured such that the force necessary to compress the nozzle bellows 0.5 inches is in the range of 10-16 pounds force.
- f. The terminal end of each nozzle shall be manufactured in accordance with the specifications referenced in Section 4.7.3 of CP-201.

2. COAXIAL HOSES

- a. Every coaxial hose is tested for continuity and pressure tests in accordance with UL Standard 330.
- b. Every coaxial hose is manufactured to the standards and specifications that passed all tests conducted during the ARB certification for the following:
 - Exhibit 5 - Liquid Removal Test Procedure (for curb hoses)
 - TP-201.2J - Hose Pressure Drop (for curb and whip hoses)

3. BREAKAWAY COUPLINGS

- a. Every breakaway coupling is tested for continuity and pressure tests in accordance with UL Standard 567.
- b. Every breakaway coupling is manufactured to the standard that passed all tests conducted during the ARB certification for the following:
 - TP-201.2J - Breakaway Pressure Drop

4. VST ECS MEMBRANE PROCESSOR

- a. Every ECS Membrane Processor is subjected to a VST Pressure Decay Test to verify pressure integrity.
- b. Every ECS Membrane Processor is subjected to a VST Heat Trace Cable Continuity Test to ensure proper connections.
- c. Every ECS Membrane Processor is subjected to a VST operability test to ensure proper rotation and operation of the blower motor and vacuum pump.

Part II – Veeder-Root Manufacturing Performance Standards and Specifications

The Veeder-Root Vapor Polisher and all components shall be manufactured in compliance with the performance standards and specifications in CP-201 (amended May 25, 2006), as well as the requirements specified in this Executive Order. All components (Exhibit 1) shall be manufactured as certified; no change to the equipment, parts, design, materials or manufacturing process shall be made unless approved in writing by the Executive Officer or Executive Officer delegate. Unless specified in Exhibit 2 or in the ***ARB Approved Installation, Operation and Maintenance Manual***, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a gasoline dispensing facility.

1. VEEDER-ROOT VAPOR POLISHER

- a. The pressure drop across the Veeder Root Vapor Polisher is measured at a fixed flow rate.
- b. The Veeder-Root Vapor Polisher is tested for leaks.

- c. The Veeder-Root Vapor Polisher Vapor Valve Smart Sensor communication is tested using Veeder-Root Smart Sensor control protocol.
- d. The Veeder-Root Vapor Polisher Vapor Valve Smart Sensor electro-mechanical valve open and close operation is tested.
- d. The Veeder-Root Vapor Polisher Vapor Valve Smart Sensor electro-mechanical valve feedback control loop is tested for accurate reporting of the valve position.

Part III – Goodyear Manufacturing Performance Standards and Specifications

1. COAXIAL HOSES

- a. Every coaxial hose is tested for continuity and pressure tests in accordance with UL Standard 330.
- b. Every coaxial hose is manufactured to the standards and specifications that passed all tests conducted during the ARB certification for the following:

Exhibit 5	- Liquid Removal Test Procedure (for curb hoses)
TP-201.2J	- Hose Pressure Drop (for curb and whip hoses)